AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the present application.

IN THE CLAIMS:

1. (Currently Amended) A DNA synthesis reaction-enhancer comprising at least one kind selected from the group consisting of cationic complexes and water-soluble acidic macromolecular substances, wherein said water-soluble acidic macromolecular substances are one or more substances selected from the group consisting of sulfated-fucose-containing polysaccharides, dextran sulfate, carrageenan, heparin, rhamnam sulfate, dermatan sulfate (chondroitin sulfate B), heparan sulfate, hyaluronic acid, alginic acid, pectin, polyglutamic acids, polyacrylic acids, polyvinyl sulfates, polystyrene sulfates, DNAs which do not serve as templates for subject DNA synthesis, and salts thereof.

Claims 2-4. (Canceled).

5. (Currently Amended) The DNA synthesis reaction-enhancer according to claim 1 4, wherein said sulfated-fucose-containing polysaccharide is sulfated-fucose-containing polysaccharide-F or sulfated-fucose-containing polysaccharide-U.

6. (Original) The DNA synthesis reaction-enhancer according to claim 1, wherein said cationic complex is a transition metal complex.

7. (Original) The DNA synthesis reaction-enhancer according to claim 6, wherein a central atom in said transition metal complex is a transition element of the Group VIII of the elemental periodic table.

8. (Original) The DNA synthesis reaction-enhancer according to claim 7, wherein said transition element is one or more elements selected from the group consisting of cobalt, rhodium and iridium.

9. (Original) The DNA synthesis reaction-enhancer according to claim 8, wherein said transition metal complex is one or more kinds selected from the group consisting of $[Co(NH_3)_6]Cl_3$, $[Co(H_2NCH_2CH_2NH_2)_3]Cl_3$ and $[Rh(H_2NCH_2CH_2NH_2)_3]Cl_3$.

Claims 10-15. (Canceled).

16. (Previously Presented) A DNA synthesis reaction composition comprising the DNA synthesis reaction-enhancer of claim 1.

17. (Original) The DNA synthesis reaction composition according to claim 16, further comprising DNA polymerase.

18. (Original) The DNA synthesis reaction composition according to claim 17, wherein the composition comprises two or more kinds of DNA polymerases.

Claims 19-20. (Canceled).

21. (Original) The DNA synthesis reaction composition according to claim 18, wherein the composition comprises one DNA polymerase having 3′→5′ exonuclease activity, and the other DNA polymerase having no 3′→5′ exonuclease activity.

22. (Previously Presented) A DNA synthesis reaction composition comprising two or more kinds of DNA polymerases each having 3′→ 5′ exonuclease activity which is not reduced.

23. (Original) The DNA synthesis reaction composition according to claim 22, wherein the composition comprises α-type DNA polymerase and non-α, non-polI type DNA polymerase.

Claims 24-30. (Canceled).

31. (Previously Presented) A kit for use in *in vitro* DNA synthesis, wherein the kit comprises the DNA synthesis reaction-enhancer of claim 1 and DNA polymerase.

32. (Original) The kit according to claim 31, further comprising a reagent usable for DNA synthesis.

33. (Previously Presented) The kit according to claim 31, which comprises two or more kinds of DNA polymerase.

34. (Previously Presented) The kit according to claim 31, wherein said DNA polymerase is a thermostable DNA polymerase.

35. (Withdrawn; Currently Amended) The DNA synthesis reaction composition according to claim 22, further comprising ~~the~~ a DNA synthesis reaction-enhancer ~~of claim 1~~, wherein said DNA synthesis

reaction-enhancer comprises at least one kind selected from the group consisting of cationic complexes and water-soluble acidic macromolecular substances, and wherein said water-soluble acidic macromolecular substances are one or more substances selected from the group consisting of sulfated-fucose-containing polysaccharides, dextran sulfate, carrageenan, heparin, rhamnam sulfate, dermatan sulfate (chondroitin sulfate B), heparan sulfate, hyaluronic acid, alginic acid, pectin, polyglutamic acids, polyacrylic acids, polyvinyl sulfates, polystyrene sulfates, DNAs which do not serve as templates for subject DNA synthesis, and salts thereof.